Catalogue of American Amphibians and Reptiles.

Smith, J.W., J.S. Parmerlee, Jr., and R. Powell. 1995. *Anolis olssoni.*

Anolis olssoni Schmidt

Anolis semilineatus: Fischer, 1888:24 (part).
Anolis olssoni Schmidt, 1919:522. Type-locality, "slopes of the Moro [= El Morro] of Monte Cristi, Santo Domingo [= Dominican Republic]." Holotype, American Museum of Natural History (AMNH) 13400, a small adult male, collected by Axel Olsson in June 1916 (not examined by authors).
Anolis semilineatus olssoni: Böker, 1939:74.
Anolis ollsoni: Schwartz, 1980:126. *Lapsus*.

• **Content.** Eight subspecies are recognized: *olssoni, alienus, domingonis, extentus, ferrugicauda, insulanus, montivagus, palloris*.

• **Definition.** *Anolis olssoni* is a small grass anole (SVL in males to 50 mm, females to 44 mm) with a slender habitus, a long attenuate tail (SVL ranges from 21-29 % of unregenerated tail length), 3-7 rows of loreals, 0-2 (usually 1) scales between supraorbitals, 1-4 (modally 2-3) scales between the interparietal and the supraorbital semicircles, 2-4 postrostrals, 2-4 postmentals, and 8-15 rows of enlarged, keeled, dorsal scales. The lateral scales are small and granular and the ventrals are keeled and as large as the dorsals. Dewlap color in males is usually bright orange with widely spaced rows of yellow scales. The dorsal pattern consists of: (1) a middorsal longitudinal pale line, (2) a series of dark triangles, their apices almost meeting middorsally, to give a serrate effect to the pattern, or (3) a combination of 1 and 2. A pair of dark nuchal blotches or a pair of dark occipital dots are often present. The flank stripe is somewhat conspicuous, depending on the lateral and ventrolateral color and pattern and the shade of the stripe. The venter may vary from white, white with brown lines, to solid brown. No sexual dichromatism exists. Males have a pair of enlarged postanal scales.

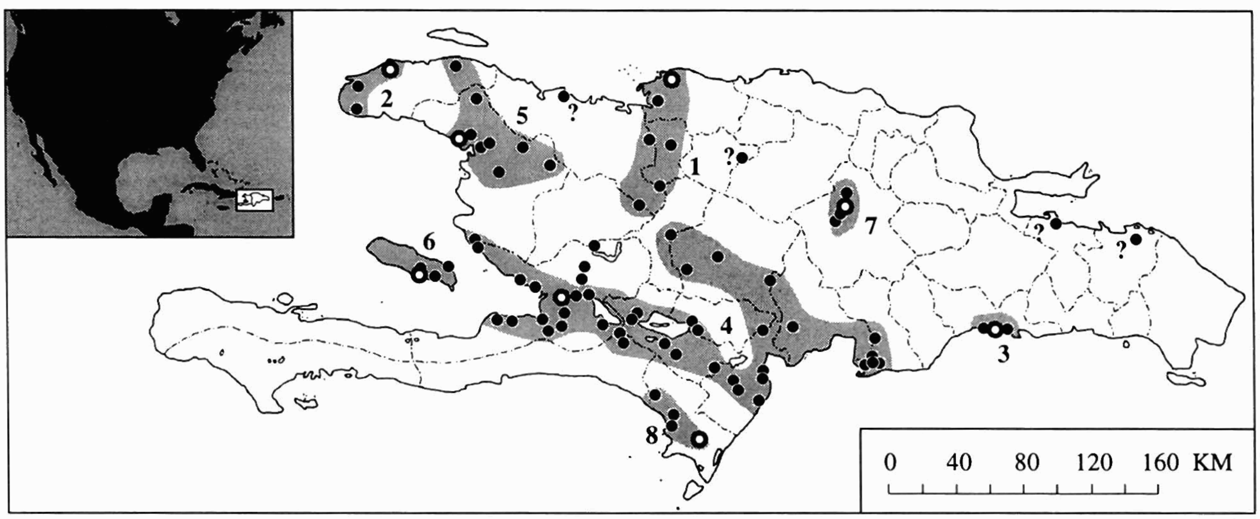


Figure 1. Adult male *Anolis olssoni extentus* from Barahona, Provincia de Barahona, República Dominicana. The posture is characteristic of an individual ready to jump. Grass anoles were characterized by Peterson (1974) as "acrobats," and are much more likely to leap than to crawl or run.



Figure 2. Adult male *Anolis olssoni extentus* from Barahona, Provincia de Barahona, República Dominicana. The posture is characteristic of an agonistic response by a male to the proximity of another male (see Queral et al., 1996).

• **Diagnosis.** *Anolis olssoni* can be distinguished from most Hispaniolan congeners by its slender habitus and long, rounded tail (> 3 x SVL); and from other elongate species by the following combination of characters: a more or less lineate dorsal pattern or with a series of rhombs or diamonds, always some shade of tan to brown, never brightly colored (from *A. dolichocephalus*, *A. hendersoni*, and *A. bahorucoensis*) and by the orange dewlap in males (from *A. semilineatus* and *A. alumina*).



Map. Range of *Anolis olssoni* (modified from Schwartz and Henderson, 1991). Circles mark type-localities, dots mark other records. Question marks indicate populations unassigned subspecifically (see Remarks).

• **Descriptions.** In addition to the original by Schmidt (1919), descriptions may be found in Mertens (1939), Cochran (1941), and Schwartz and Henderson (1991). Gorman et al. (1967) described the karyotype (2N = 36 [12 macrochromosomes + 24 microchromosomes]).

• **Illustrations.** Line drawings are in Schmidt (1921), Böker (1939), Mertens (1939, 1940), and Cochran (1941). A colored illustration is in Schwartz and Henderson (1985). Queral et al. (1996) illustrated a male agonistic response.

• **Distribution.** A Hispaniolan endemic, the species is known to have a disjunct distribution across central and northern Haiti and the central and western Dominican Republic. The species is usually associated with open, xeric to semi-xeric habitats. Altitudinal distribution ranges from sea level to approximately 700 m (Schwartz and Henderson, 1991).

• **Fossil Record.** None.

• **Pertinent Literature.** Schwartz (1981) presented a systematic review and discussed variation. SEA/DVS (1990) provided an index to habitats in the Dominican Republic. The species is included in various checklists, keys, notes, and guides by Fischer (1888) (as *A. semilineatus*), Barbour (1914, 1930a, b, 1935, 1937), Cochran (1924, 1928, 1934, 1941), Schwartz and Thomas (1975), Henderson and Schwartz (1984), Henderson et al. (1984), Schwartz and Henderson (1985, 1988), Wetherbee (1988), Burns et al. (1992), SEA/DVS (1992), Powell et al. (1996a), and Irschick and Losos (1996).

Other topics addressed in the literature include: ecology and natural history (Williams and Rand, 1969; Hertz, 1977, 1979; Williams, 1983; Schoener, 1988; Schwartz and Henderson, 1991; Smith et al., 1994; Powell et al., 1996b), predation (Henderson and Horn, 1983; Henderson et al., 1987), parasitism by the apicomplexan *Eimeria avilae* (Cisper et al., 1995), size and morphology (Williams, 1960; Fitch, 1981; Losos, 1992), behavior (Peterson, 1974; Moermond, 1981; Queral et al., 1996), zoogeography (Schwartz, 1971, 1980), and systematic relationships (Etheridge, 1960; Williams, 1961, 1976; Williams and Rand, 1961; Hertz, 1976; Burnell and Hedges, 1990).

• **Remarks.** Dominican specimens of *Anolis olssoni* from Hato Mayor, El Seibo, and Santiago Rodriguez provinces, and Haitian specimens from Départements du Centre and du Nord remain unassigned subspecifically (Schwartz and Henderson, 1988, 1991).

Powell (1993) suggested that *A. olssoni insulanus* may warrant recognition as a full species and that data are insufficient to draw conclusions regarding other populations of uncertain systematic status.

Frank and Ramus (1995) provided the common name "Monte Cristi anole" for this species. In associating the type-locality so closely with the identity of this species, this name distracts attention from the widespread distribution of these anoles throughout many diverse regions of Hispaniola. As a result, we prefer to avoid its use.

• **Etymology.** Although not specifically stated by Schmidt (1919), the specific epithet obviously is a patronym honoring Axel Olsson, who collected the holotype (Schmidt, 1921). Derivations of subspecific names are given in Schwartz (1981): *alienus* is Latin in reference to the remote area occupied by this subspecies; *domingonis* is derived from Santo Domingo; *extentus* is from the Latin "stretched out," in reference to the wide distribution of this subspecies; *ferrugicauda* is from the Latin *ferrugo* (rust) and *cauda* (tail), in reference to the bold tail coloration of this subspecies; *insulanus* is from the Latin "islander," alluding to the insular distribution; *montivagus* is from the Latin "wandering over the mountains," alluding to the habitat of this subspecies; and *palloris* is from the Latin "paleness," in reference to coloration of this subspecies.

1. *Anolis olssoni olssoni* Schmidt

Anolis olssoni Schmidt, 1919:522. See species synonymy.
Anolis semilineatus olssoni: Böker, 1939:74.
Anolis olssoni olssoni: Schwartz, 1981:6. First use of trinomial.

• **Definition.** This subspecies was characterized by Schwartz (1981)(based on 7 specimens), as having: 5-7 (mode 6) snout scales (second canthals), 4 vertical rows of loreals, 0-1 (mode 1) row of scales between semicircles, usually 2/2 scales between semicircles and interparietal, 10-13 ($\bar{x}$= 11.2) scales around interparietal, 4-6 (mode 5) scales in supraocular disc, 2 postrostrals, 2 postmentals, 9-15 ($\bar{x}$= 11.4) enlarged dorsal rows, and 17-22 ($\bar{x}$= 19.3) 4th toe lamellae. The dorsum is generally lineate and pale. Flank stripes are prominent. Nuchal blotches are large. The venter is pale white in males and brown-lineate in females. The distal half of the tail is brownish.

2. *Anolis olssoni alienus* Schwartz

Anolis olssoni alienus Schwartz, 1981:10. Type-locality, "Jean Rabel, Département du Nord Ouest, Haiti." Holotype, Museum of Comparative Zoology (MCZ) 63010 (original number, MCZ 05576), adult male, collected by A.S. Rand and J.D. Lazell, Jr. in 1960 (not examined by authors).

• **Definition.** This subspecies was characterized by Schwartz (1981) (based on 15 specimens), as having: 6-8 (mode 6) snout scales (second canthals), 4-6 (mode 5) vertical rows of loreals, 0-2 (mode 1) row of scales between semicircles, 2/2-4/4 (mode 2/2, 3/3) scales between semicircles and interparietal, 10-14 ($\bar{x}$ = 12.2) scales around interparietal, 5-8 (mode 5) scales in supraocular disc, 2-3 ($\bar{x}$= 2.1) postrostrals, 2-4 ($\bar{x}$= 2.7) postmentals, 11-15 ($\bar{x}$= 11.8) enlarged dorsal rows, and 17-20 ($\bar{x}$= 18.9) 4th toe lamellae. The dorsum is very pale tan and virtually patternless in both sexes. The flank stripes are inconspicuous and not outlined with black. Nuchal and occipital spots are usually present in both sexes. The venter is white. The distal portion of the tail is darker than the proximal half.

3. *Anolis olssoni domingonis* Schwartz

Anolis olssoni domingonis Schwartz, 1981:16. Type-locality, "Riviera del Caribe, 4 km W airport turnoff, Distrito Nacional, República Dominicana." Holotype, Museum of Comparative Zoology (MCZ) 143797 (original number, MCZ F-15097), adult male, collected by P.E. Hertz and R.B. Huey in 1974 (not examined by authors).

• **Definition.** This subspecies was characterized by Schwartz (1981)(based on 21 specimens), as having: 5-8 (mode 6) snout scales (second canthals), 3-7 (mode 4) vertical rows of loreals, 0-2 (mode 1) row of scales between semicircles, 2/2-2/4 (mode 3/3) scales between semicircles and interparietal, 10-14 ($\bar{x}$= 11.7) scales around interparietal, 4-9 (mode 7) scales in supraocular disc, 2-4 ($\bar{x}$= 2.8) postrostrals, 2-4 ($\bar{x}$= 2.7) postmentals, 11-14 ($\bar{x}$= 12.4) enlarged dorsal rows, and 19-23 ($\bar{x}$= 20.7) 4th toe lamellae. The dorsum is very dark with a middorsal streak. The flank stripes are bold and white. The venter is white. The distal portion of the tail is darker than the proximal half.

4. *Anolis olssoni extentus* Schwartz

Anolis olssoni extentus Schwartz, 1981:11. Type-locality, "8.3 km E Croix des Bouquets, Départ[e]ment de l'Ouest, Haiti." Holotype, Museum of Comparative Zoology (MCZ) 156203 (original number, ASFS V40470), adult male, collected by a native on 19 August 1977 (not examined by authors).

• **Definition.** This subspecies was characterized by Schwartz (1981) (based on 155 specimens), as having: 5-8 (mode 6) snout scales (second canthals), 4-6 (mode 5) vertical rows of loreals, 0-1 (mode 1) row of scales between semicircles, 1/1-4/4 (mode 2/2) scales between semicircles and interparietal, 8-19 ($\bar{x}$ = 12.0) scales around interparietal, 2-7 (mode 5) scales in the supraocular disc, 2-4 ($\bar{x}$ = 2.3) postrostrals, 2-5 ($\bar{x}$ = 2.3) postmentals, 8-14 ($\bar{x}$ = 10.8) enlarged dorsal rows, and 16-24 ($\bar{x}$ = 19.6) 4th toe lamellae. The dorsum is pale tan, usually lineate in males and with triangles in females. Flank stripes are not prominent nor are they darkly outlined. Nuchal spots usually are absent in males, occipital spots are found in both sexes.

5. *Anolis olssoni ferrugicauda* Schwartz

Anolis olssoni ferrugicauda Schwartz, 1981:8. Type-locality, "Gonaïves, Départ[e]ment de l'Artibonite, Haiti." Holotype, Museum of Comparative Zoology (MCZ) 156202 (original number, ASFS V46554), adult male, collected by a native on 10 July 1978 (not examined by authors).

• **Definition.** This subspecies was characterized by Schwartz (1981) (based on 57 specimens), as having: 6-9 (mode 6) snout scales (second canthals), 4-6 (mode 5) vertical rows of loreals, 0-1 (mode 1) row of scales between semicircles, 1/1-3/3 (mode 2/2) scales between semicircles and interparietal, 9-14 ($\bar{x}$ = 11.5) scales around interparietal, 3-7 (mode 5) scales in supraocular disc, 2-3 ($\bar{x}$ = 2.3) postrostrals, 2-5 ($\bar{x}$ = 2.6) postmentals, 9-14 ($\bar{x}$ = 11.8) enlarged dorsal rows, and 17-23 ($\bar{x}$ = 20.2) 4th toe lamellae. The dorsum is pale tan with irregularly shaped and arranged black spots or blotches extending below the white flank stripe. Nuchal spots are present in males, but are incorporated into the dark dorsal blotched pattern and are small and inconspicuous in females. The venter is brown. The distal two-thirds of the tail is rusty brown with a purple tip.

6. *Anolis olssoni insulanus* Schwartz

Anolis olssoni insulanus Schwartz, 1981:14. Type-locality, "vicinity of Pointe à Raquettes, Ile de la Gonâve, Haiti." Holotype, Museum of Comparative Zoology (MCZ) 80701 (original number, MCZ X-01041), adult male, collected by G. Whiteman in 1964 (not examined by authors).

• **Definition.** This subspecies was characterized by Schwartz (1981)(based on 54 specimens), as having: 5-8 (mode 6) snout scales (second canthals), 4-6 (mode 5) vertical rows of loreals, 0-1 (mode 1) row of scales between semicircles, 1/1-3/3 (mode 2/2) scales between semicircles and interparietal, 8-14 ($\bar{x}$ = 10.6) scales around interparietal, 4-8 (mode 5) scales in supraocular disc, 2-4 ($\bar{x}$ = 2.5) postrostrals, 2-4 ($\bar{x}$ = 2.6) postmentals, 9-12 ($\bar{x}$ = 10.8) enlarged dorsal rows, and 17-23 ($\bar{x}$ = 19.5) 4th toe lamellae. The lineate dorsum is dark brown. The flank stripes are conspicuous. Nuchal blotches are variable in males and absent in females. Occipital dots usually are absent in both sexes. The venter is white with occasional line fragments or lines in females. The tail is dark tan distally.

7. *Anolis olssoni montivagus* Schwartz

Anolis olssoni montivagus Schwartz, 1981:18. Type-locality, "14 km SW La Vega, 488 m, La Vega Province, República Dominicana." Holotype, Museum of Comparative Zoology (MCZ) 156205 (original number, ASFS V1736), adult male, collected by R. Thomas on 22 October 1968 (not examined by authors).

• **Definition.** This subspecies was characterized by Schwartz (1981)(based on 17 specimens), as having: 4-7 (mode 6) snout scales (second canthals), 3-5 (mode 4) vertical rows of loreals, 0-1 (mode 1) row of scales between semicircles, 2/2-3/3 (mode 3/3) scales between semicircles and interparietal, 10-13 ($\bar{x}$ = 11.4) scales around interparietal, 5-7 (mode 5 and 7) scales in supraocular disc, 2-3 ($\bar{x}$ = 2.2) postrostrals, 2-4 ($\bar{x}$ = 2.8) postmentals, 10-14 ($\bar{x}$ = 10.9) enlarged dorsal rows, and 17-21 ($\bar{x}$ = 19.4) 4th toe lamellae. The dorsum is boldly lineate with a median pale line outlined laterally by fine dark brown lines which extend onto the base of the tail and are blotchy anteriorly. Sides are dark brown. Nuchal blotches and occipital dots are prominent. The venter is white with some remnant ventrolateral dark brown lines.

8. *Anolis olssoni palloris* Schwartz

Anolis olssoni palloris Schwartz, 1981:15. Type-locality, "5 km N Pedernales, Pedernales Province, República Dominicana." Holotype, Museum of Comparative Zoology (MCZ) 156204 (original number, ASFS V2546), adult male, collected by R. Thomas on 25 June 1964 (not examined by authors).

• **Definition.** This subspecies was characterized by Schwartz (1981)(based on 5 specimens), as having: 5-8 (mode 6) snout scales (second canthals), 4-5 (mode 4) vertical rows of loreals, 0-1 (mode 0) row of scales between semicircles, 2/2 scales between semicircles and interparietal, 7-10 ($\bar{x}$ = 9.0) scales around interparietal, 5-6 (mode 5) scales in supraocular disc, 2-3 ($\bar{x}$ = 2.6) postrostrals, 2-3 ($\bar{x}$ = 2.4) postmentals, 9-12 ($\bar{x}$ = 10.6) enlarged dorsal rows, and 17-21 ($\bar{x}$ = 18.8) 4th toe lamellae. The lineate dorsum is greenish gray with a middorsal line, with or without dark outlining. Cream flank stripes are indistinct and with an indistinct greenish lower border. Nuchal blotches and occipital spots are usually absent in both sexes.

Literature Cited

Barbour, T. 1914. A contribution to the zoögeography of the West Indies, with especial reference to amphibians and reptiles. Mem. Mus. Comp. Zoöl. 44:209-359.

—. 1930a. The anoles I. The forms known to occur on the neotropical islands. Bull. Mus. Comp. Zoöl. 70:105-144.

—. 1930b. A list of Antillean reptiles and amphibians. Zoologica (N.Y.) 11:61-116.

—. 1935. A second list of Antillean reptiles and amphibians. Zoologica (N.Y.) 19:77-141.

—. 1937. Third list of Antillean reptiles and amphibians. Bull. Mus. Comp. Zoöl. 82:77-166.

Böker, H. 1939. Sobre algunos resultados de mis investigaciones en el Instituto Científico Domínico-Alemán. Publ. Inst. Cient. Domínico-Alemán 1:14-77.

Burnell, K.L. and S.B. Hedges. 1990. Relationships of West Indian *Anolis* (Sauria: Iguanidae): an approach using slow-evolving protein loci. Carib. J. Sci. 26:7-30.

Burns, J.K., C.A. Cunningham, R.A. Dupuis, M.N. Trask, J.S. Tulloch, R. Powell, J.S. Parmerlee, Jr., K.L. Kopecky, and M.L. Jolley. 1992. Lizards of the Cayos Siete Hermanos,

Dominican Republic, Hispaniola. Bull. Chicago Herpetol. Soc. 27:225-232.
Cisper, G.L., C. Huntington, D.D. Smith, R. Powell, J.S. Parmerlee, Jr., and A. Lathrop. 1995. Four new coccidia (Apicomplexa: Eimeriidae) from anoles (Lacertilia: Polychrotidae) in the Dominican Republic. J. Parasitol. 81:252-255.
Cochran, D.M. 1924. Notes on the herpetological collections made by Dr. W.L. Abbott on the island of Haiti. Proc. U.S. Natl. Mus. 66(6):1-15.
—. 1928. The herpetological collections made in Haiti and its adjoining islands by Walter J. Eyerdam. Proc. Biol. Soc. Washington 41:53-59.
—.1934. Herpetological collections made in Hispaniola by the *Utowana* expedition, 1934. Occ. Pap. Boston Soc. Nat. Hist. 8:163-188.
—. 1941. The herpetology of Hispaniola. Bull. U.S. Natl. Mus. (177):vii + 398 p.
Etheridge, R. 1960. The relationships of the anoles (Reptilia: Sauria: Iguanidae): an interpretation based on skeletal morphology. Ph.D. Diss., Univ. Michigan, Ann Arbor.
Fischer, J.G. 1888. Ueber eine Kollection Reptilien und Amphibien von Hayti. Jahrb. Wiss. Anst. Hamburg 5:23-45.
Fitch, H.S. 1981. Sexual size differences in reptiles. Misc. Publ. Mus. Nat. Hist. Univ. Kansas (70):1-72.
Frank, N. and E. Ramus. 1995. A complete guide to scientific and common names of reptiles and amphibians of the world. NG Publ., Inc., Pottsville, Pennsylvania.
Gorman, G.C., L. Atkins, and T. Holzinger. 1967. New karyotypic data on 15 genera of lizards in the family Iguanidae, with a discussion of taxonomic and cytological implications. Cytogenetics 6:286-299.
Henderson, R.W. and H.S. Horn. 1983. The diet of the snake *Uromacer frenatus dorsalis* on Ile de la Gonâve, Haiti. J. Herpetol. 17:409-412.
— and A. Schwartz. 1984. A guide to the identification of the amphibians and reptiles of Hispaniola. Milwaukee Pub. Mus. Spec. Publ. Biol. Geol. (4):1-70.
—, —, and S.J. Incháustegui. 1984. Guía para la identificación de los anfibios y reptiles de la Hispaniola. Mus. Nac. Hist. Nat. Ser. Mono. (1):1-128.
—, —, and T.A. Noeske-Hallin. 1987. Food habits of three colubrid tree snakes (genus *Uromacer*) on Hispaniola. Herpetologica 43:241-248.
Hertz, P.E. 1976. *Anolis alumina*, new species of grass anole from the Barahona Peninsula of Hispaniola. Breviora (437):1-19.
—. 1977. Report, p. 22-29. *In* E.E. Williams (ed.), The Third *Anolis* Newsletter.
—. 1979. Comparative thermal biology of sympatric grass anoles (*Anolis semilineatus* and *A. olssoni*) in lowland Hispaniola (Reptilia, Lacertilia, Iguanidae). J. Herpetol. 13:329-333.
Irschick, D.J. and J.B. Losos. 1996. Morphology, ecology, and behavior of the twig anole, *Anolis angusticeps*, p. 291-301. *In* R. Powell and R.W. Henderson (eds.), Contributions to West Indian herpetology: a tribute to Albert Schwartz. SSAR, Ithaca, New York.
Losos, J.B. 1992. The evolution of convergent structure in Caribbean *Anolis* communities. Syst. Biol. 41:403-420.
Mertens, R. 1939. Herpetologische Ergebnisse einer Reise nach der Insel Hispaniola, Westindien. Abh. senckenberg. naturf. Ges. (449):1-84.
—. 1940. Zoologische Reisen auf der Insel Hispaniola, p. 155-241. *In* R. Mertens, Aus dem Tierleben der Tropen. Reisebilder aus Asien, Afrika und Amerika. Hrsg. von den Senckenbergischen Naturforschenden Gesellschaft zu Frankfurt am Main. Verl. Dr. Waldemar Kramer, Frankfurt a/M.
Moermond, T.C. 1981. Prey-attack behavior of *Anolis* lizards. Z. Tierpsychol. 56:128-136.
Peterson, J. 1974. Report, p. 37-43. *In* E.E. Williams (ed.), The Second *Anolis* Newsletter.
Powell, R. 1993. Comments on the taxonomic arrangement of some Hispaniolan amphibians and reptiles. Herpetol. Rev. 24:135-137.
—, R.W. Henderson, K. Adler, and H.A. Dundee. 1996a. An annotated checklist of West Indian amphibians and reptiles, p. 51-93. *In* R. Powell and R.W. Henderson (eds.), Contributions to West Indian herpetology: a tribute to Albert Schwartz. SSAR, Ithaca, New York.
—, J.S. Parmerlee, Jr., and D.D. Smith. 1996b. Evidence of spatial niche partitioning by a Hispaniolan lizard community in a xeric habitat, p. 317-326. *In* R. Powell and R.W. Henderson (eds.), Contributions to West Indian herpetology: a tribute to Albert Schwartz. SSAR, Ithaca, New York.
Queral, A., R. Garcia, R. Powell, J.S. Parmerlee, Jr., D.D. Smith, and A. Lathrop. 1996. Agonistic responses by a grass anole, *Anolis olssoni* from the Dominican Republic, to male conspecifics. Amphib.-Rept. 17:in press.
Schmidt, K.P. 1919. Descriptions of new amphibians and reptiles from Santo Domingo and Navassa. Bull. Amer. Mus. Nat. Hist. 41:519-525.
—. 1921. Notes on the herpetology of Santo Domingo. Bull. Amer. Mus. Nat. Hist. 44:7-20.
Schoener, T.W. 1988. Testing for non-randomness in sizes and habitats of West Indian lizards: choice of species pool affects conclusions from null models. Evol. Ecol. 2:1-26.
Schwartz, A. 1971. A systematic review of the Hispaniolan snake genus *Hypsirhynchus*. Stud. Fauna Curaçao Carib. Isl. 35: 63-94.
—. 1980. The herpetogeography of Hispaniola, West Indies. Stud. Fauna Curaçao Carib. Isl. 61:86-127.
—. 1981. Variation in Hispaniolan *Anolis olssoni* Schmidt (Reptilia: Sauria: Iguanidae). Milwaukee Pub. Mus. Contr. Biol. Geol. (47):1-21.
— and R.W. Henderson. 1985. A guide to the identification of the amphibians and reptiles of the West Indies exclusive of Hispaniola. Milwaukee Pub. Mus., Milwaukee, Wisconsin.
— and —. 1988. West Indian amphibians and reptiles: a checklist. Milwaukee Pub. Mus. Contr. Biol. Geol. (74):1-264.
— and —. 1991. Amphibians and reptiles of the West Indies: descriptions, distributions, and natural history. Univ. Florida Press, Gainesville.
— and R. Thomas. 1975. A check-list of West Indian amphibians and reptiles. Carnegie Mus. Nat. Hist. Spec. Publ. (1): 1-216.
SEA/DVS (Secretaría de Estado de Agricultura/Departamento de Vida Silvestre). 1990. La diversidad biológica en la República Dominicana: reporte preparado por el Departamento de Vida Silvestre para el Servicio Alemán de Cooperación Social-Téchnica y Fondo Mundial para la Naturaleza (WWD-US). Apendices. Sec. Estado Agric., SURENA/DVS. Sto. Domingo, República Dominicana.
—. 1992. Reconocimiento y evaluación de los recursos naturales en Loma Nalga de Maco. Sec. Estado Agric., Depto. Vida Silvestre. Sto. Domingo, República Dominicana.
Smith, J.W., R. Powell, J.S. Parmerlee, Jr., D.D. Smith, and A. Lathrop. 1994. Natural history notes on a population of grass anoles, *Anolis olssoni* (Sauria: Polychrotidae), from the Dominican Republic. Bull. Maryland Herpetol. Soc. 30:67-75.
Wetherbee, D.K. 1988. The Artibonito–Massacre faunal corridor in República Dominicana. Carib. J. Sci. 24:23-27.
Williams, E.E. 1960. Notes on Hispaniolan herpetology 1. *Anolis christophei*, new species, from the Citadel of King Christophe, Haiti. Breviora (117):1-7.

—. 1961. Notes on Hispaniolan herpetology 3. The evolution and relationships of the *Anolis semilineatus* group. Breviora (136):1-8.

—. 1976. West Indian anoles: a taxonomic and evolutionary summary 1. Introduction and a species list. Breviora (440): 1-21.

—. 1983. Ecomorphs, faunas, island size, and diverse end points in island radiations of *Anolis*, p. 326-370. *In* R.B. Huey, E.R. Pianka, and T.W. Schoener (eds.), Lizard ecology: studies of a model organism. Harvard Univ. Press, Cambridge, Massachusetts.

— and A.S. Rand. 1961. Notes on Hispaniolan herpetology 2. A review of the *Anolis semilineatus* group with the description of *Anolis cochranae*, new species. Breviora (135): 1-11.

— and —. 1969. *Anolis insolitus*, a new dwarf anole of zoogeographic importance from the mountains of the Dominican Republic. Breviora (326):1-21.

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